EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Vincent Anderson (Reg. No. 54,962) on 07 November 2008.

Paragraph [0031] of the specification has been amended as follows:

[0031] A detailed description of the JMX specification can be found on the Sun Website (currently version 1.2.1 Reference Implementation).

The following claims have been amended as follows:

1. A monitoring system comprising:

a cluster of multiple application server instances wherein each said application server instance includes a plurality of server nodes, and a central services instance communicatively coupled to said plurality of server nodes on a multi-tiered network, wherein at least one of the server nodes is dedicated for presentation logic and at least one of the other server nodes is dedicated for business logic wherein the presentation logic and business logic are logically separated from a user application instance

executing on a client, the application server instances to serve applications over the multi-tiered network to a plurality of clients, wherein the central services instance is to provide messaging and synchronization services between the server nodes in the cluster;

a central database in the central services instance storing program code and configuration information for the application server instances;

a plurality of MBean servers assigned to the plurality of server nodes;

a plurality of runtime MBeans associated with specified resources on each of the plurality of server nodes and registered with one of the MBean servers, each of the runtime MBeans collecting and reporting monitoring data for its associated resource; and

cluster integration logic in the central services instance, the cluster integration logic including a plurality of monitor MBeans arranged in a hierarchical tree structure, each of the monitor MBeans associated with at least one of the runtime MBeans, each of the monitor MBeans to receive resource data from its associated runtime MBean, the cluster integration logic to compile the resource data collected from each of the individual runtime MBeans via the MBean servers throughout the cluster and to provide the compiled resource data in a predefined organizational structure to a management interface to provide a unified view of the managed resources in the cluster to an administrator, the predefined organizational structure being a monitor tree representing a hierarchical relationship between each of the resources monitored by each of the

MBeans.

8. A method comprising:

communicatively coupling a plurality of server nodes via an application server instance that is part of a cluster, the cluster having multiple application server instances wherein each said application server instance includes a plurality of server nodes, and a central services instance communicatively coupled to said plurality of server nodes on a multi-tiered network, wherein at least one of the server nodes is dedicated for presentation logic and at least one of the other server nodes is dedicated for business logic wherein the presentation logic and business logic are logically separated from a user application instance executing on a client, the application server instances to serve applications over the multi-tiered network to a plurality of clients, wherein the central services instance is to provide messaging and synchronization services between the server nodes in the cluster, wherein the central services instance includes a central database for storing program code and configuration information for the application server instances;

assigning a dedicated MBean server to each of the plurality of server nodes;

associating a plurality of runtime MBeans with specified resources on each of the plurality of server nodes and registering the MBeans with one of the individual MBean servers, each of the runtime MBeans collecting and reporting monitoring data for its associated resource; and

integrating the resource data collected from each of the individual runtime MBeans and providing the integrated resource data to a management interface according to a predefined organizational structure, wherein integrating the resource data and providing the integrated resource data are performed with cluster integration logic in the central services instance, the cluster integration logic including a plurality of monitor MBeans arranged in a hierarchical tree structure, each of the monitor MBeans associated with at least one of the runtime MBeans, each of the monitor MBeans to receive resource data from its associated runtime MBean, and wherein providing the integrated resource data comprises providing a unified view of the managed resources in the cluster to an administrator, the predefined organizational structure being a monitor tree representing a hierarchical relationship between each of the resources monitored by each of the MBeans.

14. An article of manufacture comprising a machine-readable storage medium including machine-executable instructions stored thereon which, when executed by a machine, causes the machine to perform the operations of:

communicatively coupling a plurality of server nodes via an application server instance that is part of a cluster, the cluster having multiple application server instances wherein each said application server instance includes a plurality of server nodes, and a central services instance communicatively coupled to said plurality of server nodes on a multi-tiered network, wherein at least one of the server nodes is dedicated for presentation logic and at least one of the other server nodes is dedicated for business

logic wherein the presentation logic and business logic are logically separated from a user application instance executing on a client, the application server instances to serve applications over the multi-tiered network to a plurality of clients, wherein the central services instance is to provide messaging and synchronization services between the server nodes in the cluster, wherein the central services instance includes a central database for storing program code and configuration information for the application server instances;

assigning a dedicated MBean server to each of the plurality of server nodes;

associating a plurality of runtime MBeans with specified resources on each of the plurality of server nodes and registering the MBeans with one of the individual MBean servers, each of the runtime MBeans collecting and reporting monitoring data for its associated resource; and

integrating the resource data collected from each of the individual runtime MBeans and providing the integrated resource data to a management interface according to a predefined organizational structure, wherein integrating the resource data and providing the integrated resource data are performed with cluster integration logic in the central services instance, the cluster integration logic including a plurality of monitor MBeans arranged in a hierarchical tree structure, each of the monitor MBeans associated with at least one of the runtime MBeans, each of the monitor MBeans to receive resource data from its associated runtime MBean, and wherein providing the integrated resource data comprises providing a unified view of the managed resources in the cluster to an administrator, the predefined organizational structure being a

monitor tree representing a hierarchical relationship between each of the resources monitored by each of the MBeans.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN PRICE whose telephone number is (571)272-4196. The examiner can normally be reached on 8:00am - 4:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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